UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF INDIANA
INDIANAPOLIS DIVISION

K.C., *et al.*,

Plaintiffs,

v.

THE INDIVIDUAL MEMBERS OF THE MEDICAL LICENSING BOARD OF INDIANA, in their official capacities, *et al.*,

Defendants.

No. 1:23-CV-595

EXPERT REBUTTAL DECLARATION OF JACK TURBAN, MD, MHS

1. I have been retained by counsel for Plaintiffs as an expert in connection with the above-captioned litigation.

2. I have actual knowledge of the matters stated herein.

3. My background and credentials are outlined in my initial declaration.

4. I reviewed the declarations of Drs. James Cantor, Paul Hruz, Dianna Kenny, Kristopher Kaliebe, and Daniel Weiss. Here, I respond to some of the central points in those declarations. I do not specifically address each study or article cited, but instead explain the overall problems with some of the conclusions Defendants' experts draw and provide data showing why such conclusions are in error. I reserve the right to supplement my opinions if necessary as the case proceeds.

DEFENDANTS' EXPERTS' CLAIM THAT INDIANA'S BAN ON GENDER-AFFIRMING MEDICAL CARE FOR ADOLESCENT GENDER DYSPHORIA IS CONSISTENT WITH INTERNATIONAL CONSENSUS IS NOT ACCURATE

5. Defendants' experts rely on reports from a handful of European countries and imply that Indiana's ban on gender-affirming medical care is in line with "international consensus." (*See*

Cantor, ¶¶ 17-33; Kaliebe, ¶¶ 104, 136; Kenny, ¶¶ 183-184; Weiss ¶¶ 130-135). This is not accurate. Of note, the vast majority of these reports were not peer-reviewed. Some of these reports are older and do not include the most recent research demonstrating the efficacy of the banned treatments. And others do not include all of the relevant literature. Most importantly, though, Defendants' experts fail to emphasize that *none* of these countries have banned gender-affirming medical care for adolescents with gender dysphoria as Indiana does. Rather, the select countries referenced have changed the way in which gender-affirming care is being delivered (*e.g.,* moving care to settings where more data can be collected, as in Sweden, or creating several regional clinics instead of one centralized clinic, as in the United Kingdom). Rather than put it in line with "international consensus," Indiana's broad ban on gender-affirming medical care for adolescent gender dysphoria puts the law squarely outside of mainstream medical views and policies around the world. In the United States, the major relevant expert medical organizations (*e.g.*, the American Medical Association, the American Academy of Pediatrics, the American Psychiatric Association, and the American Academy of Child & Adolescent Psychiatry) explicitly oppose such bans.[1]

DEFENDANTS' EXPERTS MISREPRESENT THE GENDER-AFFIRMING MODEL OF CARE FOR ADOLESCENT GENDER DYSPHORIA AND MENTAL HEALTH INVOLVEMENT

6. Defendants' experts note that adolescents presenting to gender clinics may have complex psychiatric presentations including autism spectrum disorder, borderline personality disorder, or body dysmorphic disorder, among others. It is important to note that the current standards of care require a biopsychosocial mental health assessment prior to initiating gender-

[1] For a list of statements from major medical organizations opposing legislative bans on gender-affirming medical care for adolescent gender dysphoria, please see Turban, J. L., Kraschel, K. L., & Cohen, I. G. (2021). Legislation to criminalize gender-affirming medical care for transgender youth. *JAMA*, *325*(22), 2251-52.

affirming medical intervetions for minors.[2] Such mental health assessments exist to distinguish other mental health conditions from gender dysphoria and to determine if gender-affirming medical interventions may be appropriate or not. While there has been rhetoric such as "affirmation on demand" used by defendants' experts (Cantor, ¶ 289), this is not the reality of how gender-affirming medical care for adolescents is delivered under existing guidelines. As the WPATH Standards of Care note, this biopsychosocial assessment is often extended "for youth with more complex mental health presentations (e.g., complicating mental health histories), co-occuring autism spectrum characteristics, or an absence of experienced childhood gender incongruence."[3] It is important to highlight that the Indiana ban did not merely ban gender-affirming medical care for adolescent gender dysphoria without following existing guidelines (i.e., without a comprehensive biopsychosocial mental health assessment); it banned it across the board.

THOUGH RANDOMIZED CONTROLLED TRIALS OFTEN REPRESENT HIGHER QUALITY EVIDENCE THAN OTHER STUDY DESIGNS, THEY ARE NOT ETHICAL IN THE REALM OF GENDER-AFFIRMING CARE FOR ADOLESCENT GENDER DYSPHORIA AND EXISTING RESEARCH PROVIDES VALUABLE INFORMATION ON QUESTIONS OF CORRELATION VERSUS CAUSATION

7. Defendants' experts spend a great deal of time focusing on randomized controlled trial study designs and questions of correlation versus causation. It is true that randomized controlled trials provide valuable information that other studies do not; however, as noted in my initial declaration, they are not considered ethical in this area and would not be approved by an Institutional Review Board. For this reason, experts in this field look at the body of a literature as

[2] Coleman, E., Radix, A. E., Bouman, W. P., Brown, G. R., De Vries, A. L. C., Deutsch, M. B., ... & Arcelus, J. (2022). Standards of care for the health of transgender and gender diverse people, version 8. *International Journal of Transgender Health*, *23*(sup1), S1-S259.

[3] *Id.*

a whole to address certain questions. Though each study in medicine has relative strengths and weaknesses, examining the body of literature as a whole provides a rich scientific perspective.

8. As Dr. Cantor notes in his declaration, there are three possibilities when a study finds a correlation between two variables X and Y: "that X causes Y [causation], that Y causes X [reverse causation], or that there is some other variable Z, that causes both X and Y [confounding effect]." (Cantor, ¶ 58). In this case, the question is whether gender-affirming medical care (X) causes improved mental health outcomes for adolescents with gender dysphoria (Y).

9. The question of "reverse causation" (*i.e.,* the notion that improved mental health causes one to access gender-affirming medical care rather than the reverse, that gender-affirming medical care leads to better mental health) has been examined in the literature. For example, in a recent major publication in *The New England Journal of Medicine*, Chen et al. used a technique called parallel process modeling and found that improvements in mental health tracked along with improvements in appearance congruence over time (a measure of the degree to which study participants' bodies aligned with their gender identities), suggesting that gender-affirming medical care, and its subsequent physical effects, was the cause of the improvements in mental health, and arguing against the notion of reverse causation.[4]

10. The question of "confounding effect" has also been examined in several ways. For instance, a 2022 paper from my research group assessing the relationship between treatment with gender-affirming medical interventions and improved mental health statistically adjusted for a range of potentially confounding variables including age, gender identity, sex assigned at bith, sexual orientation, race/ethnicity, level of family support for gender identity, relationship status,

[4] Chen, D., Berona, J., Chan, Y. M., Ehrensaft, D., Garofalo, R., Hidalgo, M. A., ... & Olson-Kennedy, J. (2023). Psychosocial Functioning in Transgender Youth after 2 Years of Hormones. *New England Journal of Medicine*, *388*(3), 240-50.

level of education, employment status, household income, having ever received pubertal suppression, having ever been exposed to gender identity conversion efforts, and having experienced any harassment based on gender identity in school.[5] Even after statistically adjusting for these potential confounding factors, the study found that treatment with gender-affirming medical care during adolescence was associated with lower odds of adverse mental health outcomes.

11. Another potential confounder that Defendants' experts raise is whether or not participants received supportive psychotherapy in addition to gender-affirming medical care. Of note, there is no evidence-based psychotherapy that treats gender dysphoria itself, so such therapy is generally aimed at supporting the patient in general with their mental health. At least two studies provide evidence against the notion that mental health improvements were due to supportive psychotherapy rather than gender-affirming hormone treatment. Achille et al. ran regression analyses in order to separate out the impacts of gender-affirming medical interventions from the impact of counseling and psychiatric medications.[6] Though the sample size made it difficult to detect differences, they nonetheless found that pubertal suppression was associated with better scores on the Center for Epidemiology Studies Depression Scale, which was a statistically significant finding.[7]

---

[5] Turban, J. L., King, D., Kobe, J., Reisner, S. L., & Keuroghlian, A. S. (2022). Access to gender-affirming hormones during adolescence and mental health outcomes among transgender adults. *PLoS One*, *17*(1), e0261039.

[6] Achille, C., Taggart, T., Eaton, N. R., Osipoff, J., Tafuri, K., Lane, A., & Wilson, T. A. (2020). Longitudinal impact of gender-affirming endocrine intervention on the mental health and well-being of transgender youths: preliminary results. *International Journal of Pediatric Endocrinology*, *2020*(1), 1-5.

[7] It is important to note that in statistics, a statistically significant finding tells you that a finding is likely to represent a true effect and the finding wasn't due to random chance. In contrast, the

12. Dr. Cantor spends considerable time in his lengthy declaration attempting to discredit existing studies. He does so based largely on critiques that are inapplicable to the various studies he applies them to. But perhaps more importantly, he fails to look at the body of research as a whole. For example, Dr. Cantor claims that Achille et al. "failed to account for the multiple comparisons it conducted" and asserts that "had the study applied the standard adjustment for correcting for multiple comparisons, the remaining predictor would also have ceased to be statistically significant (Cantor, ¶ 195). Though he doesn't specify which "standard adjustment" technique he is referring to, Dr. Cantor is presumably referring to techniques such as Bonferroni correction, which are designed to correct for comparisons in studies where large numbers of statistical tests are run. But such a correction would be inppropriate in studies such as Achille et al., which run a small number of statistical tests.[8]

13. Dr. Cantor also critiques Costa et al., which examined two cohorts of adolescents with gender dysphoria. Both cohorts received six months of supportive psychotherapy for the initial six months of the study. For the next six months, one group continued to receive supportive psychotherapy alone, while the other received supportive psychotherapy *and* pubertal suppression. The group that received pubertal suppression in addition to psychotherapy experienced statistically significant improvement in global functioning (measured by the Children's Global Assessment Scale, CGAS) over that second course of six months, while the group that received supportive

---

lack of a statistically significant finding doesn't tell you one way or another if there is an effect. I would caution against over-interpreting non-statistically significant findings. Lack of a statistically significant finding doesn't mean that no effect exists; it simply means the analysis in question does not tell the researchers one way or another if an effect exits.

[8] Nakagawa S. A farewell to Bonferroni: the problems of low statistical power and publication bias. Behavioral Ecology. 2004; 15(6):1044–5.

psychotherapy alone did not.[9] Dr. Cantor claims that these results are "moot" because another publication from this clinic (Carmichael et al. 2021)[10] did not find "any significant improvement at all." (Cantor, ¶ 195). What Dr. Cantor fails to explain is that this second paper did not run any statistical analyses on the CGAS global functioning score, which had shown statistically significant improvement in the first study. In the methods section, the authors explain that they only conducted statistical comparisons on other variables (CBCL, YSR, CBCL self-harm index, and YSR self-harm index).[11] In the discussion of Carmichael et al. 2021, the authors highlight, "CGAS scores in this previous study [Costa et al. 2015] increased from 61 to 67 with GnRHa treatment, similar to those (63 at baseline, 66 at 24 months) in our [Carmichael et al. 2021] study."[12]

DEFENDANTS' EXPERTS' DISCUSSION OF CHILDHOOD VERSUS ADOLESENT ONSET OF GENDER DYSPHORIA DOES NOT SUPPORT BANNING GENDER-AFFIRMING MEDICAL CARE

14. Defendants' experts draw a distinction between those who first come to experience gender dysphoria in early childhood and those who first come to experience gender dysphoria in adolescence (i.e., after the onset of puberty). They imply that those who first recognize gender dysphoria in adolescence will not continue to hold a gender identity different from their sex

[9] Costa, R., Dunsford, M., Skagerberg, E., Holt, V., Carmichael, P., & Colizzi, M. (2015). Psychological support, puberty suppression, and psychosocial functioning in adolescents with gender dysphoria. *The Journal of Sexual Medicine*, *12*(11), 2206-14.

[10] Carmichael, P., Butler, G., Masic, U., Cole, T. J., De Stavola, B. L., Davidson, S., ... & Viner, R. M. (2021). Short-term outcomes of pubertal suppression in a selected cohort of 12 to 15 year old young people with persistent gender dysphoria in the UK. *PloS one*, *16*(2), e0243894.

[11] The authors of this study note there are several possibilities, not mentioned by Dr. Cantor, for why the outcomes they examined were not statistically different. These included that the sample size was too small and that, "lack of change in an outcome that normally worsens in early adolescence may reflect a beneficial change in trajectory for that outcome, i.e. that GnRHa treatment reduced this normative worsening of problems."

[12] *Id.*

assigned at birth later in life. There is no evidence to support this claim. Additionally, it is important to note that Indiana's ban on gender-affirming medical care is a broad ban on all gender-affirming medical care, regardless of whether the patient experienced childhood-onset gender dysphoria or adolescent-onset gender dysphoria.

15. It is true that some past studies on the benefits of gender-affirming medical care were limited to patient populations who first knowingly experienced gender dysphoria in early childhood (e.g., deVries et al. 2014). However, these are not the only studies documenting improved mental health from treatment. Other studies have similarly shown improved mental health for adolescents with gender dysphoria treated with pubertal suppression and gender-affirming hormones in contexts where the studied population was not limited to those experiencing early childhood onset gender dypshoria. Correspondingly, the clinical guidelines do not recommend that those who first experience gender dysphoria in adolescence be ineligible for gender-affirming medical care. The WPATH Standards of Care 8, for instance, highlight that those with an absence of gender incongruence during the prepubertal childhood period may warrant "a more extended assessment process," but are still candidates for care. Likewise, a recent publication from our group found that it is not uncommon for transgender people to first come to understand their transgender identity in adolescence or later.[13] In this sample of over 27,000 transgender adults, 40.8% reported first coming to realize their transgender identity during adolescence or adulthood. Though one's transgender identity has a strong biological basis, as described later in this declaration, it can take some time for individuals to ascribe language to their transgender identity or gender dysphoria, and it can also take a substantial period of time to overcome the

[13] Turban, J. L., Dolotina, B., Freitag, T. M., King, D., & Keuroghlian, A. S. (2023). Age of Realization and Disclosure of Gender Identity Among Transgender Adults. *Journal of Adolescent Health*, *72*(6), 852-59.

stigma associated with a transgender identity to be able to openly accept one's transgender identity. Thus, a lack of expressed early childhood gender incongruence does not necessarily indicate less severe gender dysphoria, or that gender-affirming medical care will not be effective. Though as the WPATH Standards of Care note, it may necessitate an extended biopsychosocial assessment period.[14]

16. Dr. Cantor raises "particular concern" that adolescent-onset gender dysphoria may actually represent borderline personality disorder (BPD). (Cantor, ¶ 159). There is no evidence to support this theory. Existing guidelines emphasize the importance of a comprehensive biopsychosocial mental health evaluation, designed to differentiate other mental health conditions (e.g., BPD or body dysmorphic disorder from gender dysphoria), prior to initiating gender-affirming medical care. Of further note, despite Dr. Kaliebe's assertion that "little scholarly guidance exists regarding specific approaches related to the various personality disorders with comorbid gender dysphoria," (Kaliebe, ¶ 179), a recent peer-reviewed paper in *The Harvard Review of Psychiatry* emphasized the ways in which certain potential indicators of other conditions, like BPD, can be differentiated from gender dysphoria.[15] It also noted that it is rare for BPD to lead to a transgender identity through "identity diffusion."[16]

[14] Coleman, E., Radix, A. E., Bouman, W. P., Brown, G. R., De Vries, A. L. C., Deutsch, M. B., ... & Arcelus, J. (2022). Standards of care for the health of transgender and gender diverse people, version 8. *International Journal of Transgender Health*, *23*(sup1), S1-S259.

[15] Goldhammer, H., Crall, C., & Keuroghlian, A. S. (2019). Distinguishing and addressing gender minority stress and borderline personality symptoms. *Harvard Review of Psychiatry*, *27*(5), 317-25.

[16] *Id.*

DR. CANTOR FALSELY CLAIMED THAT I MADE AN ERROR IN MY CHARACTERIZATION OF HOW DIAGNOSTIC CRITERIA CHANGED FROM DSM-IV TO DSM-5

17. In my initial declaration, I explained that the DSM-IV diagnosis of "gender identitiy disorder in children" did not require a child to identify as a gender different from their sex assigned at birth, an issue that was remedied with the DSM-5's "gender dysphoria" diagnosis. This change was relevant to the so-called desistance studies because many of the pre-pubertal children studied likely did not have a transgender identity in childhood such that it was unsurprising that they did not have a transgender identity later in life. Dr. Cantor claims that the DSM-5 diagnosis of gender dysphoria in children does not require one to identify with a gender different from their sex assigned at birth and the the DSM-IV diagnosis of "gender identity disorder in children" did. (Cantor, ¶ 266). However, Dr. Cantor fails to note, despite pasting the DSM-5 criteria into his declaration, that the DSM-5 gender dysphoria diagnosis states that the criterion A1 is required for the diagnosis: "a strong desire to be of the other gender or an insistence that one is the other gender (or some alternative gender different from one's assigned gender." The prior DSM-IV diagnosis of "gender identity disorder in children" did not require this, and one could qualify for the diagnosis by meeting criertion A2-A5, none of which require a gender identity different from one's sex assigned at birth, creating the potential for cisgender "tomboys" or cisgender males with "feminine interests" to meet those old diagnostic criteria.

DEFENDANTS' EXPERTS' ASSERTION THAT SOCIAL TRANSITION AND/OR GENDER-AFFIRMING MEDICAL CARE INTENSIFY GENDER INCONGRUENCE IS NOT SUPPORTED BY EVIDENCE

18. The Defendants' experts spend a considerable portion of their declarations discussing social transition. This refers to when a transgender person adopts a gender expression (i.e., a name, pronouns, clothes, etc.) that aligns with their gender identity. This does not involve any of the medical interventions banned by the Indiana law at issue in this case. Nevertheless, it is

worth noting that the assertions made by the Defendants' experts about this issue are not supported by evidence. For example, Dr. Cantor states: "[S]ocial transition seems to prevent desistance." (Cantor,¶ 120). Despite Dr. Cantor spending a considerable portion of his declaration on the importance of differentiating correlation from causation, he appears unable to apply that to the findings that social transition is correlated with "persistence." He outlines data showing that youth who socially transition are more likely to continue to identify as transgender later in life (i.e., correlation). But this correlation could be due to two possibilities: (1) social transition could influence a child's gender identity, making them identify more strongly as transgender and thus more likely to persist, or (2) children who go on to socially transition identified more strongly as transgender than those who did not *prior* to social transition, and thus their pre-transition gender incongruence lead to the social transition in the first place.

19. Research by Rae et al. has shown that the second possibility is far more likely to be what is occurring.[17] Their 2019 study showed that gender identification is not significantly different before and after a social transition. The study made clear that this correlation—between pre-pubertal social transition and transgender identity—is because those who undergo a pre-pubertal social transition had stronger discordance between their sex assigned at birth and their gender identity to begin with, and that social transition itself does not increase gender discordance.

20. Defendants' experts proceed to point to studies showing that over 98% of transgender adolescents who start pubertal suppression go on to start gender-affirming hormones, in order to suggest that pubertal suppression increased these adolescents' gender incongruence and thus likelihood of "persistence.". It is another logical fallacy to infer that a study showing that 98%

[17] Rae, J. R., Gülgöz, S., Durwood, L., DeMeules, M., Lowe, R., Lindquist, G., & Olson, K. R. (2019). Predicting early-childhood gender transitions. *Psychological Science*, *30*(5), 669-81.

of adolescents on puberty blockers proceeding on to gender-affirming hormones is evidence that puberty blockers increase the likelihood of persistence; rather, it is just as possible, and in my opinion more likely, that, given the biopsychosocial mental health assessment that is done prior to starting gender-affirming medical interventions under current guidelines, the adolescents who started pubertal suppression were those who were, through medical and mental health screening, determined, prior to starting pubertal suppression, to have a low likelihood of future desistence.

DEFENDANTS' EXPERTS' SUGGESTION THAT GENDER-AFFIRMING TREATMENT SHOULD NOT BE AVAILABLE BECAUSE GENDER DYSPHORIA IS THE RESULT OF "SOCIAL CONTAGION" AND "RAPID ONSET GENDER DYSPHORIA" IS WITHOUT BASIS

21. Defendants' experts suggest that gender-affirming medical care should be banned because, they claim, peer influence is responsible for adolescents seeking gender-affirming medical care that they will later come to regret. (*See, e.g.*, Cantor, ¶ 109; Kaliebe, ¶¶ 42-43; Kenny, ¶¶ 33, 81). They assert that "social contagion" is the driver of gender dysphoria and that there is a phenomenon of "rapid-onset gender dysphoria" or ROGD. Such a view is not supported by evidence.

22. Several of Defendants's experts use or allude to the term "rapid onset gender dysphoria" – failing to note that this is not a recognized mental health condition.[18] The term "rapid onset gender dysphoria" entered the literature in 2018 through a publication by Dr. Lisa Littman.[19] Soon after the initial publication of Dr. Littman's article, a correction was published.[20] The

[18] Littman, L. (2019). Correction: Parent reports of adolescents and young adults perceived to show signs of a rapid onset of gender dysphoria. *PLoS One*, *14*(3), e0214157.

[19] Littman, L. (2018). Rapid-onset gender dysphoria in adolescents and young adults: A study of parental reports. *PLoS One*, *13*(8).

[20] Littman, L. (2019). Correction: Parent reports of adolescents and young adults perceived to show signs of a rapid onset of gender dysphoria. *PLoS One*, *14*(3), e0214157.

correction noted, "Rapid onset gender dysphoria (ROGD) is not a formal mental health diagnosis at this time . . . This report did not collect any data from the adolescents and young adults (AYAs) or clinicians and therefore does not validate the phenomenon." [21] The correction goes on to say "the term should not be used in any way to imply that it explains the experiences of all gender dysphoric youth . . . ." Despite this, Defendants' experts repeatedly cite this article to make unsubstantiated claims. For example, citing to Littman, Dr. Kaliebe states, "significant evidence suggests that the dramatic rise in minors presenting with gender dysphoria may be attributable to technologically induced contagion effects." (Kaliebe, ¶ 42). Dr. Kaliebe claims that a paper published in 2015, prior to publication of the Littman paper, validated the same phenomenon that Littman described in her paper.[22] (Kaliebe, ¶ 45). But it did no such thing. This paper reports on 47 adolecents who were referred to a gender clinic in Finland between 2011 and 2013. It describes the existence of cohort of patients in which there were more adolescents assigned female at birth, several of whom came to understand their gender identity after adolescence, and many of whom experienced other mental health challenges (anxiety, depression, etc.). But there is no mention in this 2015 paper of "social contagion" or "rapid-onset gender dysphoria."

23. The Littman study was an anonymous online survey of the parents of transgender youth, recruited from websites where this notion of "social contagion" leading to transgender

[21] A recent study by Bauer et al. in *The Journal of Pediatrics* examined some of the associations that would be consistent with the existence of "rapid-onset gender dysphoria" and concluded that their results "did not support the rapid onset gender dysphoria hypothesis." Bauer, G. R., Lawson, M. L., Metzger, D. L., & Trans Youth CAN! Research Team. Do Clinical Data from Transgender Adolescents Support the Phenomenon of "Rapid Onset Gender Dysphoria"?. *The Journal of Pediatrics*, S0022-3476.

[22] Kaltiala-Heino, R., Sumia, M., Työläjärvi, M., & Lindberg, N. (2015). Two years of gender identity service for minors: overrepresentation of natal girls with severe problems in adolescent development. *Child and Adolescent Psychiatry and Mental Health*, *9*(1), 1-9.

identity is popular. The anonymous survey participants were asked what they thought was the etiology of their children's transgender identity. Some of these parents believed that their children became transgender as a result of watching transgender-related content on websites like YouTube and having LGBTQ friends. The alternative interpretation, and in my opinion more likely interpretation, is that these youth sought out transgender-related media and LGBTQ friends because they wanted to find other people who understood their experiences and could offer support. The parent respondents also noted that, from their perspective, their children became transgender "all of a sudden," hence the term "rapid onset." Once again, the problem here is that the study did not interview the adolescents themselves, nor their healthcare providers. It is common for transgender (as with gay, lesbian, and bisexual) children and adolescents to conceal their identity from their parents for long periods of time. In a recent study from our research group, transgender people who first understood their gender identity in childhood waited a median 14 years before sharing this with another person.[23] In my experience working with transgender youth and adults, the reasons for this tend to be out of fear of negative repercussions (rejection, being kicked out of the house, or even physical assault) if their parents were to find out that they are transgender. Children often learn to conceal their gender non-conforming behaviors and transgender identity early, particularly if their parents have strong negative reactions to them exhibiting gender non-confirming behavior.

24. Dr. Cantor attempts to add credence to this 2018 Littman study by stating that it was "independently replicated by another study." (Cantor, ¶ 135). The "replicated" study (the

[23] Turban, J. L., Dolotina, B., Freitag, T. M., King, D., & Keuroghlian, A. S. (2023). Age of Realization and Disclosure of Gender Identity Among Transgender Adults. *Journal of Adolescent Health*, *72*(6), 852-59.

"Diaz Study")[24] referenced by Dr. Cantor used the same methodology as the original Littman study of recruiting participants from websites where the idea of "social contagion" is popular, and thus carries the same limitations. Specifically, the Diaz Study used an identical methodology to the one used by Dr. Littman in her paper, and recruited participants from a website called "ParentsofROGDKids.com." Once again, the only thing that this study shows is that a number of people online have the belief that the politicized notion of ROGD is true. Due to this biased methodology, the Diaz Study referenced by Dr. Cantor likewise does not establish that ROGD is a valid mental health diagnosis. Furthermore, after publication, the Diaz Study was updated with a notification from the journal stating, "readers are alerted that concerns have been raised regarding methodology as described in this article. The publisher is currently investigating this matter an a further response will follow the conclusion of this investigation."[25] The author of the paper subsequently announced that the paper was retracted, stating: "I have just been notified that my paper with Susanna Diaz will be retracted by the publisher due to concerns about the lack of informed consent."[26] Also of note, the original paper contains a notation that the first author "Susanna Diaz" is a pseudonym – an unusual practice in peer-reviewed journals.

25. Defendants' experts assert that the increase in referrals to gender clinics over the past few decades supports a "social contagion" theory. It does not. The increase in referrals has coincided with increased visibility of transgender people in society and greater awareness of

[24] Diaz, S., & Bailey, J. M. (2023). Rapid Onset Gender Dysphoria: Parent Reports on 1655 Possible Cases. *Archives of Sexual Behavior*, *52*(3), 1031-43.

[25] *Id.*

[26] Blanchard, R. Statement on Twitter May 23, 2023. Available at: https://twitter.com/profjmb/status/1661022522446610434?s=20. Accessed: May 28, 2023.

gender dysphoria and access to medical care to treat it. Whereas parents in the past may have had limited literacy regarding gender diversity in adolescents, today more Americans, as well as people abroad, have greater understanding of the experiences of transgender youth. This fact has undoubtedly increased the number of parents bringing their adolescents to gender clinics for evaluation. Additionally, insurance coverage of gender-affirming medical interventions has improved drastically, meaning that more families are able to afford care, which results in an increase in referrals for evaluation. Of note, not all adolescents who present for treatment ultimately go on to receive gender-affirming medical interventions.[27] In fact, in a large study from a Netherlands gender clinic, the percentage of patients who presented for evaluation who actually started any kind of gender-affirming treatment has decreased over time.[28] As the authors of that study note, "this finding may be explained by the fact that in the past it was harder to find information about [gender dysphoria] and its treatment, and only people with extreme types of [gender dysphoria] managed to visit our gender identity clinic for treatment. Currently, owing to media attention and the internet, it is easier to access information about our gender identity clinic, making the threshold lower to search for help." This shows that while more people may be coming in for evaluation, the criteria for diagnosis and treatment remain stringent and a smaller percentage of patients are actually being diagnosed with gender dysphoria and referred on for medical treatment.

26. Defendants' experts point to changes in sex ratios of patients at some clinics (where "birth-assigned females" are appearing in greater numbers relative to "birth-assigned males" than

[27] Wiepjes, C. M., Nota, N. M., de Blok, C. J., Klaver, M., de Vries, A. L., Wensing-Kruger, S. A., ... & den Heijer, M. (2018). The Amsterdam cohort of gender dysphoria study (1972–2015): trends in prevalence, treatment, and regrets. *The Journal of Sexual Medicine*, *15*(4), 582-590.

[28] *Id.*

in the past), and claim that this assertion supports their "social contagion" theory. However, there are many potential explanations for a change in sex ratio that do not involve social contagion. One likely possibility is that more birth-assigned females are being referred to gender clinics by their pediatricians due to greater understanding among pediatricians that birth-assigned females can have gender dysphoria. In the past, physicians thought of gender dysphoria as something that primarily impacted birth-assigned males. This likely led to many cases of gender dysphoria among birth-assigned females being undiagnosed or "missed." In recent years, literacy regarding gender dysphoria among birth-assigned females has increased among physicians. As fewer birth-assigned females go undiagnosed, the sex ratio in gender clinics has shifted away from predominantly birth-assigned males. This is similar to a pattern that has been seen in autism spectrum disorder. For example, a large study found that with increasing awareness that autism spectrum disorder can impact birth-assigned females as well as birth-assigned males, the sex ratio shifted more toward birth-assigned females, from 5.1:1 (birth-assigned males to females) to 3.1:1.[29] The same study saw the sex ratio for the related diagnosis of Asperger's syndrome similarly shift from 8.4:1 to 3.0:1.

27. Furthermore, if the Defendants' experts' theory that sex ratios have shifted due to social contagion and that there exists a unique susceptibility among people assigned female at birth were true, one would expect not just a shift in the sex ratios among those referred to gender clinics, but a shift in the sex ratio of adolescents identifying as transgender among the general population.

[29] Jensen, C. M., Steinhausen, H. C., & Lauritsen, M. B. (2014). Time trends over 16 years in incidence-rates of autism spectrum disorders across the lifespan based on nationwide Danish register data. *Journal of Autism and Developmental Disorders*, *44*(8), 1808-18.

A recent study from our research group,[30] utilizing data from the Center for Disease Control and Preventions Youth Risk Behavior Survey, and including 91,937 adolesents in 2017 and 105,433 adolescents in 2019, found that in both years the sex ratio was close to 1:1, slighty favoring those assigned male at birth.[31] This study also examined the hypothesis that adolescents may be coming to identify as transgender in an attempt to flee the stigma of being cisgender and gay. The results did not support that hypothesis.

28. Some have raised the question that if decreased stigma were driving the higher rates of adolescents openly identifying as transgender, we should be witnessing a parallel in documentable rise in gender dysphoria among, say, middle-aged adults. However, transgender middle-aged adults have endured decades of stigma for their transgender identities that, despite improvements in contemporary social attitudes, make them far less likely to come out as transgender. The "gender minority stress" model explains that these decades of exposure to unaccepting environments leads to expectations of future rejection and internalized transphobia (i.e., internalization of society's negative messages about transgender people leading to hate of oneself for being transgender), as well as identity concealment.[32] These factors make it less likely

[30] Turban, J. L., Dolotina, B., King, D., & Keuroghlian, A. S. (2022). Sex assigned at birth ratio among transgender and gender diverse adolescents in the United States. *Pediatrics*, *150*(3).

[31] As with many papers in this field, this study garnered a great deal of attention, including a letter to the editor questioning the methodology. We responded to these concerns with additional analyses that reaffirmed the study's conclusions, and this paper was not retracted: Turban, J. L., Dolotina, B., King, D., & Keuroghlian, A. S. (2022). Author Response to: Science and Public Health as a Tool for Social Justice Requires Methodological Rigor. *Pediatrics*, *150*(6), e2022059680.

[32] Hendricks, M. L., & Testa, R. J. (2012). A conceptual framework for clinical work with transgender and gender nonconforming clients: An adaptation of the Minority Stress Model. *Professional Psychology: Research and Practice*, *43*(5), 460.

for middle-aged transgender adults to come out, despite the recently observed increase in societal acceptance for transgender people in the United States. Transgender youth are, for the first time, growing up in environments where transgender identity is not as stigmatized, making it easier for them to come out when compared to transgender adults plagued by anxiety due to decades of living in societies where being transgender was not recognized or accepted.

DEFENDANTS' EXPERTS' STATEMENTS THAT TRANSGENDER IDENTITY IS NOT BIOLOGICALLY BASED IS NOT ACCURATE

29. Defendants' experts' assertion that transgender identities are not biologically based is not accurate. There is a substantial body of peer-reviewed scientific evidence showing that transgender identity has a strong biological basis. One of the strongest lines of evidence comes from so-called "twin studies"[33] that allow researchers to look at the differential impact of environment (presumed to be similar for twins) and innate genetic factors (similar for identical twins but different for fraternal twins). Researchers have examined identical twins (with the same DNA) and fraternal twins (with different DNA) and found that identical twins of transgender people are far more likely to be transgender than fraternal twins of transgender people, pointing to a strong genetic link.[34] Functional neuroimaging studies have shown that transgender adolescents have patterns of brain activation most similar to non-transgender adolescents with their same

[33] Other conditions in psychiatry including autism spectrum disorder, were previously thought to be due to environmental influences, until twin studies in these fields similarly made it clear that they had a strong innate genetic biological basis: Folstein, S., & Rutter, M. (1977). Infantile autism: a genetic study of 21 twin pairs. *Journal of Child psychology and Psychiatry*, *18*(4), 297-321.

[34] Diamond, M. (2013). Transsexuality among twins: identity concordance, transition, rearing, and orientation. *International Journal of Transgenderism*, *14*(1), 24-38.

gender identity rather than those of their sex assigned at birth.[35] Sophisticated gene sequencing studies have suggested that genes involved in estrogen processing play a role in the development of gender identity among transgender people.[36] Though the precise etiology of gender identity has yet to be identified, these studies together all establish that there is a strong innate biological basis for transgender identities.

DEFENDANTS' EXPERTS' CLAIMS THAT "SELF-REPORT" AND "SURVEY" DATA ARE NOT VALID REPRESENT A MISUNDERSTANDING OF PSYCHIATRIC RESEARCH

30. Clinical psychiatry relies heavily on self-report and data collected via questionnaires. Defendants' experts' claims that self-report and "survey" data are not valid represent a broad misunderstanding of psychiatry. Clinical psychiatry and clinical psychiatric research almost always involve patient reports of their symptoms. Because psychiatric conditions (e.g., generalized anxiety disorder, major depressive disorder, schizophrenia, obsessive compulsive disorder, and gender dysphoria, among many others) do not have laboratory tests, diagnosis is made largely based on patient reports of their symptoms. At times these may be supplemented by reports from parent and clinician observations, particularly for establishing a diagnosis; however, they are not considered standard or necessary in clinical trials that track symptoms over time or compare the mental health of those receiving treatment to those not receiving treatment. The studies cited throughout my initial declaration utilize commonly used and validated self-report psychometric measures including the Kessler-6 measure of past-month severe

[35] Burke, S. M., Cohen-Kettenis, P. T., Veltman, D. J., Klink, D. T., & Bakker, J. (2014). Hypothalamic response to the chemo-signal androstadienone in gender dysphoric children and adolescents. *Frontiers in Endocrinology*, *5*, 60.

[36] Theisen, J. G., Sundaram, V., Filchak, M. S., Chorich, L. P., Sullivan, M. E., Knight, J., ... & Layman, L. C. (2019). The use of whole exome sequencing in a cohort of transgender individuals to identify rare genetic variants. *Scientific Reports*, *9*(1), 1-11.

psychological distress,[37] Beck Depression Inventory II,[38] and self-report measures from the National Institutes of Health Toolbox Emotion Battery.[39] These self-report instruments are standard in psychiatric research. Of note, defendants' experts repeatedly cite survey research in their own reports (*e.g.,* Littman 2018,[40] Diaz 2023,[41] Litman 2021[42]).

31. It is worth highlighting that there exist both high quality and low quality survey methodologies. For example, Littman 2018 has been criticized for asking leading questions to a group that is ideologically focused, making it easy for participants to bias results and analyses.[43] Another example of a low quality survey design is a single vague audience poll, as is cited by Dr. Kaliebe. (Kaliebe, ¶ 135). He describes that, during a presentation at The American Academy of Child & Adolescent Psychiatry, Dr. Paul Weigle informally surveyed the audience asking, "How

---

[37] Kessler, R. C., Green, J. G., Gruber, M. J., Sampson, N. A., Bromet, E., Cuitan, M., ... & Zaslavsky, A. M. (2010). Screening for serious mental illness in the general population with the K6 screening scale: results from the WHO World Mental Health (WMH) survey initiative. *International Journal of Methods in Psychiatric Research*, *19*(S1), 4-22.

[38] Beck, A. T., Steer, R. A., & Brown, G. (1996). Beck depression inventory–II. *Psychological Assessment*.

[39] Slotkin, J., Nowinski, C., Hays, R., Beaumont, J., Griffith, J., Magasi, S., & Gershon, R. (2012). NIH Toolbox scoring and interpretation guide. *Washington (DC): National Institutes of Health*, 6-7.

[40] Littman, L. (2018). Rapid-onset gender dysphoria in adolescents and young adults: A study of parental reports. *PloS One*, *13*(8).

[41] Diaz, S., & Bailey, J. M. (2023). Rapid Onset Gender Dysphoria: Parent Reports on 1655 Possible Cases. *Archives of Sexual Behavior*, *52*(3), 1031-1043.

[42] Littman, L. (2021). Individuals treated for gender dysphoria with medical and/or surgical transition who subsequently detransitioned: A survey of 100 detransitioners. *Archives of Sexual Behavior*, *50*(8), 3353-3369

[43] Littman, L. (2018). Rapid-onset gender dysphoria in adolescents and young adults: A study of parental reports. *PloS One*, *13*(8).

often do you see teens who seem to be influenced by social media in regards to their sexual and/or gender identity?" In this case, the question asked was overly vague—it was not clear what Dr. Weigle meant by "influenced" (e.g., how and in what ways) nor was it clear whether respondents were referring to sexual orientation or gender identity in their responses. Dr. Kaliebe notes that these informal poll "data" were published in *Psychiatric Times*. What he fails to note is that *Psychiatric Times*, of which I am a member of the advisory board, is not a peer-reviewed journal. It primarily publishes non-peer reviewed opinion pieces. Furthermore, the article in question that published this underlying data was discussing patients hearing about diagnoses online that are ultimately not accurate. If an adolescent were to inaccurately think they have gender dysphoria, this would be explored during the comprehensive biopsychosocial evaluation that is conducted prior to considering gender-affirming medical interventions.[44]

32. In contrast to the Littman and Weigle surveys, the 2015 US Transgender Survey had over 180 questions across 32 sections.[45] If participants were to attempt to bias the results in a certain direction, they would have needed to answer questions at distant parts of the survey in a particular fashion, based on what study design they believed researchers would use. Our analyses also utilized regression analyses that adjusted for a range of potentially confounding variables, further adding to the complexity of the analyses. Of note, the analysis plans for our group's studies were designed only after the 2015 USTS was already administetred.

---

[44] Coleman, E., Radix, A. E., Bouman, W. P., Brown, G. R., De Vries, A. L. C., Deutsch, M. B., ... & Arcelus, J. (2022). Standards of care for the health of transgender and gender diverse people, version 8. *International Journal of Transgender Health*, *23*(sup1), S1-S259.

[45] James, S. E., Herman, J. L., Rankin, S., Keisling, M., Mottet, L., & Anafi, M. (2016). The Report of the 2015 U.S. Transgender Survey. Washington, DC: National Center for Transgender Equality.

DEFENDANTS' EXPERTS' VIEWS DO NOT ALIGN WITH MAINSTREAM PSYCHIATRY OR PSYCHOLOGY

33. As noted in my initial declaration, bans on gender-affirming medical care for adolescent gender dysphoria are opposed by all relevant major medical organizations including the American Medical Association, the American Academy of Pediatrics, the American Psychiatric Association, the American Academy of Child & Adolescent Psychiatry, the Endocrine Society, and the Pediatric Endocrine Society, among others.[46] Defendants' experts, which include experts in unrelated fields (e.g., Dr. Cantor is a pedophilia researcher, having never published original data in the field of child or adolescent gender dysphoria research, and has stated under oath that he has not treated any child or adolescent for gender dysphoria),[47] present views that do not align with mainstream psychiatry or medicine, as it pertains to the treatment of adolescents with gender dysphoria. Their reliance on non-peer-reviewed reports from various countries in Europe (e.g., Sweden, Finland, the United Kingdom, etc.), none of which have banned gender-affirming medical care for adolescents with gender dysphoria, represent an attempt to circumvent the actual peer-reviewed literature and expert consensus in the field.

DR. CANTOR'S PUBLISHED CRITIQUE OF THE AMERICAN ACADEMY OF PEDIATRICS GUIDELINES IS IRRELEVANT TO BANS ON GENDER-AFFIRMING MEDICAL CARE

34. Dr. Cantor asserts that his "most cited peer-reviewed paper relating to gender dysphoria in minors illustrates the expertise in the evaluation of scientific evidence that [he has] and [is] known for" (Cantor, ¶ 13), citing his 2019 pubication in the *Journal of Sex & Marital*

[46] For a list of statements, please see Turban, J. L., Kraschel, K. L., & Cohen, I. G. (2021). Legislation to criminalize gender-affirming medical care for transgender youth. *JAMA*, *325*(22), 2251-52.

[47] *Eknes-Tucker v. Marshall*, 603 F. Supp. 3d 1131, 1141-42 (M.D. Ala. 2022).

Therapy.[48] According to the National Institute of Health's PubMed library of peer-reviewed research, it has been cited only three times as of June 6, 2023.[49] The paper itself does not discuss pubertal suppression, gender-affirming hormones, or gender-affirming surgery. Rather, it solely discusses approaches to supporting pre-pubertal children. It thus is not relevant to Indiana's ban on gender-affirming medical care, which is not considered or prescribed until after the onset of puberty.

DR. KALIEBE PRESENTS AN IMPLAUSBLE THEORY THAT ALL MAJOR MEDICAL ORGANIZATIONS ARE INVOLVED IN A CONSPIRACY TO ADVANCE GENDER-AFFIRMING MEDICAL CARE FOR ADOLESCENTS WITH GENDER DYSPHORIA

35. Much of Dr. Kaliebe's declaration focuses on the notion that major medical organizations have been inappropriately influenced in some way to advance gender-affirming medical care for adolescents with gender dysphoria. For this implausible assertion to be true, the following medical organizations would all need to have been independently influenced: The American Medical Association, The American College of Physicians, The American Academy of Family Physicians, The American Academy of Obstetricians and Gynecologists, The American Osteopathic Association, The American Academy of Pediatrics, The American Psychiatric Association, The American Academy of Child & Adolescent Psychiatry, The Endocrine Society, and The Pediatric Endocrine Society.[50]

---

[48] Cantor, J. M. (2020). Transgender and gender diverse children and adolescents: fact-checking of AAP policy. *Journal of Sex & Marital Therapy*, *46*(4), 307-313.
[49] PubMed entry for *Id*. Available at: https://pubmed.ncbi.nlm.nih.gov/31838960/. Accessed: June 6, 2023.

[50] For a list of statements from major medical organizations opposing legislative bans on gender-affirming medical care for adolescent gender dysphoria, please see Turban, J. L., Kraschel, K. L., & Cohen, I. G. (2021). Legislation to criminalize gender-affirming medical care for transgender youth. *JAMA*, *325*(22), 2251-52.

36. Dr. Kaliebe similarly labels me as "a psychiatrist and transgender activist" in an attempt to imply that my work is biased. (Kaliebe,¶ 47). I, like many physicians, advocate for evidence-based public policies that will result in better health outcomes for my patients. If wanting patients to receive the best possible evidence-based medical care is the definition of an "activist," then this hopefully will apply to all physicians. In a further attempt to discredit my work, Dr. Kaliebe notes that there was a letter to the editor published in response to my group's recent publication in the journal *Pediatrics*[51] (the official journal of The American Academy of Pediatrics). This letter to the editor brought up several methodological questions, highlighting that the authors of the letter would have designed analyses different than our team had. In response, our research group published several supplemental analyses, which reaffirmed our initial findings.[52] Our published response concluded, "In summary, we appreciate the interest in our article that led us to share these additional analyses, showing that the original findings are robust across analytical approaches."[53] In contrast to Dr. Kaliebe's assertion that the journal has become ideologically biased into not applying methodological rigor, this letter to the editor and response highlight the journal's commitment to rigorious academic discource that pushes the field toward through adademics' critical analysis of each others' published research.

[51] Turban, J. L., Dolotina, B., King, D., & Keuroghlian, A. S. (2022). Sex assigned at birth ratio among transgender and gender diverse adolescents in the United States. *Pediatrics*, *150*(3).

[52] Turban, J. L., Dolotina, B., King, D., & Keuroghlian, A. S. (2022). Author Response to: Science and Public Health as a Tool for Social Justice Requires Methodological Rigor. *Pediatrics*, *150*(6), e2022059680.

[53] *Id.*

THE ASSERTION THAT EXPERTS IN THE REALM OF ADOLESCENT GENDER DYSPHORIA ALL HAVE FIANCIAL BIAS IS UNFOUNDED

37. Dr. Cantor asserts that all experts in the realm of adolescent gender dysphoria clinical care and research have financial bias and thus are not reliable experts. For instance, he asserts: "Dr. Turban's employment as director of a gender program in child and adolescent psychiatry represents a significant conflict of interest: The income he derives from medical treatment of these children would be directly affected by the outcome of this case." (Cantor, ¶ 47). What he neglects to mention is that psychiatrists do not prescribe puberty blockers or gender-affirming hormones. As an academic psychiatrist, my salary derives from the Department of Psychiatry & Behavioral Sciences, not the Department of Pediatrics, which employs physicians who prescribe gender-affirming medical interventions. But in any event, regardless of what the standard of care is, I would continue to provide mental health support to adolescents with gender dysphoria. Furthermore, academic psychiatrists consistently have lower salaries than community psychiatrists.

38. Dr. Kaliebe similarly asserts that, "those who venture into medicalized gender care are already a select few who bring to this work certain viewpoints and aspirations. Just as with the psychopharmacology or psychotherapy committee members [of AACAP], gender committee members have strong personal and professional investments in the success of their favored type of treatment. This created a well-intentioned but homogeneous group of supporters of "gender affirming care." (Kaliebe, ¶ 87). However, this is not an accurate representation of mental health providers who care for adolescents with gender dysphoria. For instance, the AACAP committee Dr. Kaliebe is referencing is the "Sexual Orientation and Gender Identity Committee." This committee is defined by caring for a certain population (i.e., youth with concerns related to sexual orientation or gender identity), not a particular modality of care. These physicians are going to

care for patients however the evidence points; they care about a patient population they specialize in caring for, not about specific treatments. Dr. Kaliebe uses his presentations not being accepted at annual meetings as evidence of bias on the selection committee, failing to note that it is common for presentations to be rejected. I myself have had talks not accepted for annual meetings – and these rejections can be due to any number of reasons including logistical ones like space constraints. Dr. Kaliebe also notes that one submission was rejected due to, among other issues, concern regarding the "methods employed in several of he presenations" (Kaliebe, ¶ 100). It is, of course, quite reasonable for an academic conference to reject a submission based on the research having methodological failing alone.

DR. KALIEBE IMPLIES THAT PSYCHOTHERAPIES SUCH AS COGNITIVE BEHAVIORAL THERAPY (CBT), DIALECTICAL BEHAVIOR THERAPY (DBT), AND MENTALIZATION-BASED THEARPY (MBT) MAY BE EFFECTIVE IN TREATING ADOLESCENT GENDER DYSPHORIA, THEN GOES ON TO CONCEDE THERE IS NO EVIDENCE THIS IS TRUE

39. Dr. Kaliebe asserts that psychotherapies such as cognitive behavioral thearpy (CBT), dialectic behavioral therapy (DBT), and mentalization based therapy (MBT) should be used to treat adolescent gender dysphoria. (Kaliebe, ¶ 167, 181). It is true that treatment manuals exist for CBT for the treatment of anxiety, depression, and PTSD. Similar, there are DBT and MBT manuals for the treatment of borderline personality disorder. Many of these treatments have been shown effective for specific conditions. However, as Dr. Kaliebe notes, "psychotherapy has not been systematically studied as a a solo treatment for gender dysphoria." (Kaliebe, ¶ 183). To my knowledge, there are no CBT, DBT, or MBT manuals for the treatment of gender dysphoria, and there are no published clinical trials. As I noted in my initial declaration, there are no evidence-based psychotherapy treatments for adolescent gender dysphoria.

CONCLUSION

40. In summary, the reports from the Defendants' experts do not provide justification for banning gender-affirming medical care for adolescents with gender dysphoria. Their view, that gender-affirming medical care for adolescents with gender dysphoria should be legislatively banned, is a fringe view, not consistent with mainstream medicine or science.[54] None of the European countries they cite have banned care. All major medical organizations in the United States disagree with the views expressed by Defendants' experts about the banned treatment.[55]

41. Under current guidelines, medical interventions for adolescents with gender dysphoria are only considered after a comprehensive biopsychosocial evaluation, consent is provided by legal guardians, assent is provided by the patient, and all stakeholders (patient, guardians, mental health professional, prescriber) are in agreement that the benefits outweigh the risks for a given adolescent.

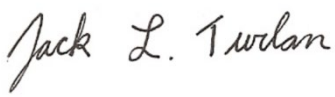
42. As I have outlined above and in my initial declaration, there is a substantial body of literature showing that gender-affirming medical care results in better mental health outcomes for adolescents with gender dysphoria. This research is consistent with the decades of clinical experience from around the world of improved mental health outcomes from these interventions. Furthermore, there are no evidence-based alternatives for treating gender dysphoria. While Defendants' experts critique the literature regarding the benefits of gender-affirming medical care, the studies they present on rapid-onset gender dysphoria and social contagion meet none of their

[54] For a list of statements from major medical organizations opposing legislative bans on gender-affirming medical care for adolescent gender dysphoria, please see Turban, J. L., Kraschel, K. L., & Cohen, I. G. (2021). Legislation to criminalize gender-affirming medical care for transgender youth. *JAMA*, *325*(22), 51-2252.

[55] *Id.*

proposed criteria for what research they would consider valid. Though they repeatedly advocate for "psychotherapy" alternatives to gender-affirming medical care, they fail to cite a single study showing that such strategies are effective. The Indiana ban would leave physicians, adolescents, and their parents without any evidence-based treatments for adolescent gender dysphoria, a condition that can cause immense suffering.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.



Executed on: June 9, 2023

JACK L. TURBAN, MD, MHS

EXHIBIT A - BIBLIOGRAPHY

Achille, C., Taggart, T., Eaton, N. R., Osipoff, J., Tafuri, K., Lane, A., & Wilson, T. A. (2020). Longitudinal impact of gender-affirming endocrine intervention on the mental health and well-being of transgender youths: preliminary results. *International Journal of Pediatric Endocrinology*, *2020*(1), 1-5.

Bauer, G. R., Lawson, M. L., Metzger, D. L., & Trans Youth CAN! Research Team. Do Clinical Data from Transgender Adolescents Support the Phenomenon of "Rapid Onset Gender Dysphoria"?. *The Journal of Pediatrics*, S0022-3476.

Beck, A. T., Steer, R. A., & Brown, G. (1996). Beck depression inventory–II. *Psychological Assessment*.

Blanchard, R. Statement on Twitter May 23, 2023. Available at: https://twitter.com/profjmb/status/1661022522446610434?s=20. Accessed: May 28, 2023.

Burke, S. M., Cohen-Kettenis, P. T., Veltman, D. J., Klink, D. T., & Bakker, J. (2014). Hypothalamic response to the chemo-signal androstadienone in gender dysphoric children and adolescents. *Frontiers in Endocrinology*, *5*, 60.

Cantor, J. M. (2020). Transgender and gender diverse children and adolescents: fact-checking of AAP policy. *Journal of Sex & Marital Therapy*, *46*(4), 307-313.

Carmichael, P., Butler, G., Masic, U., Cole, T. J., De Stavola, B. L., Davidson, S., ... & Viner, R. M. (2021). Short-term outcomes of pubertal suppression in a selected cohort of 12 to 15 year old young people with persistent gender dysphoria in the UK. *PloS one*, *16*(2), e0243894.

Chen, D., Berona, J., Chan, Y. M., Ehrensaft, D., Garofalo, R., Hidalgo, M. A., ... & Olson-Kennedy, J. (2023). Psychosocial Functioning in Transgender Youth after 2 Years of Hormones. *New England Journal of Medicine*, *388*(3), 240-50.

Coleman, E., Radix, A. E., Bouman, W. P., Brown, G. R., De Vries, A. L. C., Deutsch, M. B., ... & Arcelus, J. (2022). Standards of care for the health of transgender and gender diverse people, version 8. *International Journal of Transgender Health*, *23*(sup1), S1-S259.

Costa, R., Dunsford, M., Skagerberg, E., Holt, V., Carmichael, P., & Colizzi, M. (2015). Psychological support, puberty suppression, and psychosocial functioning in adolescents with gender dysphoria. *The Journal of Sexual Medicine*, *12*(11), 2206-14.

Diamond, M. (2013). Transsexuality among twins: identity concordance, transition, rearing, and orientation. *International Journal of Transgenderism*, *14*(1), 24-38.

Diaz, S., & Bailey, J. M. (2023). Rapid Onset Gender Dysphoria: Parent Reports on 1655 Possible Cases. *Archives of Sexual Behavior*, *52*(3), 1031-43.

Eknes-Tucker v. Marshall, 603 F. Supp. 3d 1131, 1141-42 (M.D. Ala. 2022).

Folstein, S., & Rutter, M. (1977). Infantile autism: a genetic study of 21 twin pairs. *Journal of Child psychology and Psychiatry*, *18*(4), 297-321.

Goldhammer, H., Crall, C., & Keuroghlian, A. S. (2019). Distinguishing and addressing gender minority stress and borderline personality symptoms. *Harvard Review of Psychiatry*, *27*(5), 317-25.

Hendricks, M. L., & Testa, R. J. (2012). A conceptual framework for clinical work with transgender and gender nonconforming clients: An adaptation of the Minority Stress Model. *Professional Psychology: Research and Practice*, *43*(5), 460.

James, S. E., Herman, J. L., Rankin, S., Keisling, M., Mottet, L., & Anafi, M. (2016). The Report of the 2015 U.S. Transgender Survey. Washington, DC: National Center for Transgender Equality.

Kaltiala-Heino, R., Sumia, M., Työläjärvi, M., & Lindberg, N. (2015). Two years of gender identity service for minors: overrepresentation of natal girls with severe problems in adolescent development. *Child and Adolescent Psychiatry and Mental Health*, *9*(1), 1-9.

Kessler, R. C., Green, J. G., Gruber, M. J., Sampson, N. A., Bromet, E., Cuitan, M., ... & Zaslavsky, A. M. (2010). Screening for serious mental illness in the general population with the K6 screening scale: results from the WHO World Mental Health (WMH) survey initiative. *International Journal of Methods in Psychiatric Research*, *19*(S1), 4-22.

Littman, L. (2018). Rapid-onset gender dysphoria in adolescents and young adults: A study of parental reports. *PLoS One*, *13*(8).

Littman, L. (2019). Correction: Parent reports of adolescents and young adults perceived to show signs of a rapid onset of gender dysphoria. *PLoS One*, *14*(3), e0214157.

Nakagawa S. A farewell to Bonferroni: the problems of low statistical power and publication bias. Behavioral Ecology. 2004; 15(6):1044–5.

PubMed entry for Cantor et al. 2019 *Journal of Sex & Marital Therapy.*. Available at: https://pubmed.ncbi.nlm.nih.gov/31838960/. Accessed: June 6, 2023.

Rae, J. R., Gülgöz, S., Durwood, L., DeMeules, M., Lowe, R., Lindquist, G., & Olson, K. R. (2019). Predicting early-childhood gender transitions. *Psychological Science*, *30*(5), 669-81.

Slotkin, J., Nowinski, C., Hays, R., Beaumont, J., Griffith, J., Magasi, S., & Gershon, R. (2012). NIH Toolbox scoring and interpretation guide. *Washington (DC): National Institutes of Health*, 6-7.

Theisen, J. G., Sundaram, V., Filchak, M. S., Chorich, L. P., Sullivan, M. E., Knight, J., ... & Layman, L. C. (2019). The use of whole exome sequencing in a cohort of transgender individuals to identify rare genetic variants. *Scientific Reports*, *9*(1), 1-11.

Turban, J. L., Dolotina, B., Freitag, T. M., King, D., & Keuroghlian, A. S. (2023). Age of Realization and Disclosure of Gender Identity Among Transgender Adults. *Journal of Adolescent Health*, *72*(6), 852-59.

Turban, J. L., Dolotina, B., King, D., & Keuroghlian, A. S. (2022). Sex assigned at birth ratio among transgender and gender diverse adolescents in the United States. *Pediatrics*, *150*(3).

Turban, J. L., Dolotina, B., King, D., & Keuroghlian, A. S. (2022). Author Response to: Science and Public Health as a Tool for Social Justice Requires Methodological Rigor. *Pediatrics*, *150*(6), e2022059680.

Turban, J. L., King, D., Kobe, J., Reisner, S. L., & Keuroghlian, A. S. (2022). Access to gender-affirming hormones during adolescence and mental health outcomes among transgender adults. *PLoS One*, *17*(1), e0261039.

Turban, J. L., Kraschel, K. L., & Cohen, I. G. (2021). Legislation to criminalize gender-affirming medical care for transgender youth. *JAMA*, *325*(22), 2251-52.

Wiepjes, C. M., Nota, N. M., de Blok, C. J., Klaver, M., de Vries, A. L., Wensing-Kruger, S. A., ... & den Heijer, M. (2018). The Amsterdam cohort of gender dysphoria study (1972–2015): trends in prevalence, treatment, and regrets. *The Journal of Sexual Medicine*, *15*(4), 582-590.